

Title (en)  
Spherical imaging/projection apparatus

Title (de)  
Sphärisches Bildaufnahme-/Projektionsgerät

Title (fr)  
Appareil de projection/prise de vues sphériques

Publication  
**EP 0778699 A2 19970611 (EN)**

Application  
**EP 96308368 A 19961119**

Priority  
US 56550195 A 19951130

Abstract (en)  
A nearly spherical view is provided using five cameras. Four cameras (52,54,56,58) provide a 360 degree view of an area using a four sided pyramid shaped element (40). The four sides (42,44,46,48) of the pyramid shaped element are reflective and reflect images from four different directions (60,62,64,66). Each camera is positioned to receive a reflected image from one of the reflective sides of the pyramid. The four cameras are arranged so that they share a common virtual optical center (90). A fifth camera (400) with a wide angle lens is positioned with the camera's optical center positioned at the common virtual optical center. The fifth camera has a view in the direction (410) of the pyramid's base to provide a nearly spherical view when combined with the 360 degree view of the other cameras. <IMAGE>

IPC 1-7  
**H04N 5/225**; **H04N 5/74**

IPC 8 full level  
**G02B 5/04** (2006.01); **G02B 27/14** (2006.01); **G09F 9/00** (2006.01); **H04M 11/00** (2006.01); **H04N 3/15** (2006.01); **H04N 5/225** (2006.01); **H04N 5/262** (2006.01); **H04N 5/66** (2006.01); **H04N 5/74** (2006.01); **H04N 7/18** (2006.01); **H04N 13/04** (2006.01)

CPC (source: EP KR US)  
**G02B 5/04** (2013.01 - EP US); **H04N 5/2628** (2013.01 - EP US); **H04N 5/74** (2013.01 - EP KR US); **H04N 7/181** (2013.01 - EP US); **H04N 23/55** (2023.01 - EP US); **H04N 23/58** (2023.01 - EP US); **H04N 23/661** (2023.01 - EP US); **H04N 25/41** (2023.01 - EP US)

Citation (applicant)  
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Designated contracting state (EPC)  
DE FR GB

DOCDB simple family (publication)  
**EP 0778699 A2 19970611**; **EP 0778699 A3 19991020**; CA 2187834 A1 19970531; CA 2187834 C 20000606; EP 1033870 A2 20000906; EP 1033870 A3 20001011; EP 1033871 A2 20000906; EP 1033871 A3 20001011; JP 2967155 B2 19991025; JP H09312858 A 19971202; KR 970032049 A 19970626; US 6115176 A 20000905

DOCDB simple family (application)  
**EP 96308368 A 19961119**; CA 2187834 A 19961015; EP 00112177 A 19961119; EP 00112178 A 19961119; JP 31467096 A 19961126; KR 19960060393 A 19961130; US 56550195 A 19951130